

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 March 2006 (09.03.2006)

PCT

(10) International Publication Number
WO 2006/025852 A3

(51) International Patent Classification:

F25B 21/02 (2006.01) F28F 7/00 (2006.01)
F25D 17/02 (2006.01) H05K 7/20 (2006.01)
F25D 23/12 (2006.01)

(21) International Application Number:

PCT/US2005/003100

(22) International Filing Date: 20 January 2005 (20.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/763,303 23 January 2004 (23.01.2004) US

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

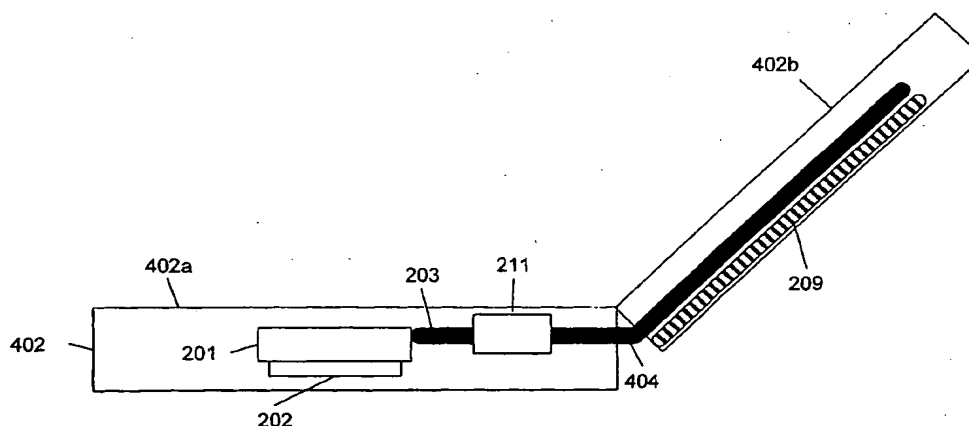
— with international search report
— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:

15 March 2007

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: COOLING OF HIGH POWER DENSITY DEVICES USING ELECTRICALLY CONDUCTING FLUIDS



(57) Abstract: A system to extract heat from a high power density device and dissipate heat at a convenient distance. The system circulates liquid metal in a closed conduit using one or more electromagnetic pumps for carrying away the heat from high power density device and rejecting the heat at a heat sink located at a distance. The system may make use of a thermoelectric generator to power the electromagnetic pumps by utilizing the temperature difference between the inlet and outlet pipes of the heat sink. The system also provides networks of primary and secondary closed conduits having series and parallel arrangements of electromagnetic pumps for dissipating heat from multiple devices at a remotely located heat sink.

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